

**Distributed Learning System
Army Learning Management System Courseware Process
for Non-TRADOC Agencies**

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LTC Robert Bean
Product Manager, Distributed Learning System
11846 Rock Landing Drive, Newport News, VA 23606-4206

1. Introduction

1.1 Purpose.

This document is for non-U.S. Army Training and Doctrine Command (TRADOC) agencies that wish to load courseware into the ALMS. It provides an overview of the processes and responsibilities for testing and loading courseware from proponents into the Army Learning Management System (ALMS). This document supplements the information provided in the Standard Operating Procedures (SOP) for Army Training Using the Learning Management System (LMS).

1.2 References.

- a. Standard Operating Procedures (SOP) for Army Training Using the Learning Management System (LMS), Version 1.0 March 2005.
- b. TRADOC Regulation 350-70, Systems Approach to Training Management, Processes and Products.

1.3 Scope.

This document applies to non-TRADOC agencies only. Non-TRADOC agencies should follow TRADOC courseware development standards to minimize problems.

1.4 Background.

- a. The Army's Distributed Learning System (DLS) will be, in its final state, a single, distributed system, supporting the Army's training of the Warfighter. It is the core delivery system of the Army training process and supports Army Force Generation (ARFORGEN). The system uses state-of-the-art, instructional-material delivery and presentation techniques.
- b. DLS is an Acquisition Category (ACAT) 1AC program that satisfies Capability Increments of The Army Distributed Learning Program's (TADLP) Operational Requirements Document (ORD). DLS acquires and sustains hardware, software, and services enabling student access to distributed training products at anytime, anywhere. Under DLS, the Army has fielded 232 Digital Training Facilities (DTFs), which provide training access for the Army's soldiers and civilians at Active Army installations and Reserve Component (RC) training sites. DLS uses an integrated learning management support system, which automates student enrollment, scheduling, and training records. DLS delivers digital courseware to include real-time video tele-training (VTT), video and audio recordings, Web- and computer-based training materials, and simulations.
 - (1) The DLS Increment 3, the Army Learning Management System (ALMS) capability manages both resident and non-resident training and education and primarily supports individual training. Increment 4 of the DLS system will provide Deployed Digital Training Campuses

(DDTC) to support individual and collective training and simulations at multiple locations inside the Continental United States (CONUS) and outside CONUS (OCONUS). DDTCs will be used worldwide to support surge and contingency operations training.

(2) DLS supports the Army's goals for assignment-oriented training (AOT), life-long learning (LLL), and leader development concepts of Army Transformation by supporting soldiers and civilian self-development training and education (i.e., professional military education and continuing education). The delivery of training and education at anytime, anywhere will allow Soldiers and leaders to update the skills and knowledge necessary to operate in a full spectrum operational environment. Fielding and sustainment operations for DLS Increments 1 (fielded DTFs) and 2 (connected the DTFs to the NIPRNET and established DLS Enterprise Management) have been ongoing since 1998 and 2000, respectively. The program office obtained full-rate production decision for the Increment 3, the Army Learning Management System, in September 2004.

c. The Army Learning Management System (ALMS).

(1) The ALMS is the heart of the Army's Distributed Learning System. The ALMS will streamline, consolidate, and provide overall direction to the Army's training processes. It builds upon the architecture developed and fielded during Increments 1 and 2 to implement a comprehensive, automated system for administering Army training throughout the Force. When deployed and fully operational, the ALMS will manage a student's training activities from initial entry and continue throughout his/her service. The ALMS will also provide course and training resource management, scheduling and registration functions, courseware distribution and storage, and learning collaboration.

(2) ALMS functions.

- Provide the hardware and software to integrate the ALMS seamlessly with the existing Increment 2 architecture and capabilities.
- Integrate ALMS fault, configuration, accounting, performance, and security (FCAPS) management functions with those being performed for the Increment 2 system.
- Provide interfaces with Army Knowledge Online (AKO) and the Army Training Requirements and Resource System (ATRRS).
- Provide process registration and enrollment requests for directed and self-motivated education/training.
- Schedule the appropriate resources (DTF seat/slot, video tele-training sessions, instructor/subject matter expert, etc.) required to conduct directed and self-motivated education/training.
- Schedule resources for both resident and non-resident education/training to include products that have a mixture of both resident and non-resident instructional units that must be taken in a specific sequence.
- Identify scheduling conflicts.
- Provide access to and interoperate with Web-based sources of approved Army doctrine and education/training products, such as the General Dennis J. Reimer Training and Doctrine Digital Library (RDL).

- Provide access to other Department of Defense (DoD) Advanced Distributed Learning (ADL) systems, which are Sharable Content Object Reference Model (SCORM)-conformant, to obtain approved training and education products.
- Monitor automated testing and Learners' progress.
- Distribute, deliver, store, and present, upon request, both SCORM-conformant and other standards-compliant education and training products.
- Enforce prerequisites and other constraints when scheduling students for Course instructional units.
- Provide access to ALMS functionality with a Web browser-based interface for all users, without the need of additional client-side applications.
- Provide Learners with the capability to collaborate synchronously and asynchronously with other Learners, Instructors, Subject Matter Experts (SMEs), and education and training administrators.
- Maintain training and education records.
- Collect, store, and report evaluation feedback from education/training personnel and students for evaluation of the quality, value, efficiency, and effectiveness of education/training resources (instructional units, tests, instructors. etc.).
- Search available, government-provided catalog of education/training products.
- Maintain an inventory database of education/training products, resources, and materials.

d. Summary. DLS plays a pivotal role in modernized Army training by enabling the functional goal of modernizing Army training through the application of Information Technology (IT), specifically by combining access through DTFs and the ALMS. It shifts the training paradigm from centralized and instructor-centric to decentralized and student-focused. Under DLS, training is accomplished not by bringing Soldiers to resident, proponent training centers, but by bringing the training to those locations worldwide where Soldiers live and work. Understanding and using the ALMS will be crucial in achieving that goal.

2. The Content Validation System (CVS)

2.1 Description.

The Content Validation System (CVS) is designed to be used by proponents and government or contractor training developers to test courseware. The CVS is designed to mirror and to mitigate the risk of corrupting the ALMS.

2.2 Quality Assurance.

a. It is the responsibility of the courseware developer/functional proponent to perform quality assurance (QA) testing (to include SCORM conformance tests) prior to sending the final courseware version to DLS for loading into the CVS. DLS will perform playability testing on a very limited scale to insure courseware works on digital training facility PCs.

b. Untrained Course Managers, CoM (i.e., personnel that have not completed ALMS CoM training), will submit courseware to DLS for playability testing on the CVS. DLS will return

courseware to the developer/proponent for correction if SCORM failures are discovered during playability testing.

2.3 Loading Courseware from the CVS to the ALMS

a. Agencies will inform DLS by email when their courseware is ready to be imported into the CVS and/or the ALMS. Agencies will provide the type and size of the courseware to reside on the CVS. The courseware will be placed into the functional proponent's security domain.

b. Courseware on the CVS will be removed once the final version is approved and loaded into the ALMS. Courseware will be archived on a CD-R/RW by DLS after a period of 30 days. CD-ROM courseware will be archived until a new version replaces the previous version.

c. Developers will be assisted by the Enterprise Management Center System Administrator in loading deployed SCORM and AICC (Aviation Industry CBT Committee) courseware. The courseware details page and publishing the courseware must be completed by the Course Manager.

2.4 Accompanying Information.

The information below must accompany all courseware loaded into the CVS. DLS can download courseware for the CVS from an FTP site or from AKO. Instructions for uploading courseware on AKO can be found at <http://help.us.army.mil/faqs/KCC>.

- Courseware/software must be received in a PIF/WINZIP file
- Course/Product Name
- Is this an ATRRS quota managed course? Y/N
- ATRRS Switch Over Date
- Course Start Date
- Course End Date
- Format
- Storage location/URL
- Do you have the source code? Y/N
- Proponent POC.
- If courseware is HTML, specify the starting file
- The version/date of courseware/software
- Title of the proponent (e.g., Army Materiel Command)
- The book marking requirements
- The answer key
- Number of modules/lessons
- Authoring Tool

2.6 Loading.

Approval to load courseware into the CVS is at the discretion of DLS. Only personnel assigned the role of Course Manager can load courseware into the CVS. Personnel requesting to load courseware must first go through ALMS training provided by the ALMS Training Team (the schedule is at www.dls.army.mil). Send a request to dlstesting@tadlp.army.mil to establish an account on the CVS with the following information.

- Name
- Phone number
- Proponent (agency) title
- Email address
- AKO User Name

3. Courseware Playability Testing

3.1 Description of the Process.

Developers and proponents will use this process for courseware that will be tested and hosted on the ALMS.

a. DLS will load training developer's/proponent's courseware on the Content Validation System (CVS). DLS will notify the developer/proponent when loading is complete.

b. Non-TRADOC training developers will test their courseware using the CVS to insure it behaves as expected and all required reports are produced as expected. The proponent will submit the form located in Appendix 1, Validation of Courseware Form, verifying that the courseware has been tested, behaves as expected, and prints reports (if any) as planned.

c. DLS will conduct playability testing of the courseware to verify that the courseware plays in DTFs. A report of the test results (see Appendix 2, Courseware Playability Test Report) will be sent to the proponent. Appendix 3, Courseware Troubleshooting, Failures and Rejections, lists typical issues with courseware. Please note that DLS only verifies for playability in DTFs. Courseware accessed outside of a DTF is subject to local workstation configurations and network restrictions which are outside of the Distributed Learning System's control.

d. After the Validation form is received at DLS, the course manager, will be authorized to publish and display (allows users to register for the course) the courseware in the Army Learning Management System.

3.2 Responsibilities.

a. Non-TRADOC proponents and courseware developers are responsible for the following:

- (1) Validating through the CVS that their courseware works properly as intended.

(2) Completing the Validation of Courseware Form confirming that their courseware was tested and works properly as intended.

(3) Ensuring a course manager is assigned to manage the course and attends the ALMS Course Manager training. The course manager is responsible for publishing and setting up the course structure on the ALMS.

(4) Appointing help desk agent(s) and insuring that personnel attend training provided by Army Training Help Desk (ATHD) staff (from the Army Training Support Center) for the RightNow Technologies eService application. This two-hour training session occurs at the end of the Course Manager training.

(5) Resolving trouble tickets submitted for your courseware.

(6) Installing a “sniffer” (when applicable) to inform students that their computer system is missing key component(s) required for the courseware to operate properly. This is a recommended best practice.

(7) Providing students’ information about how the courseware is expected to behave. For example, if a student exits the course in the middle of a module, does the courseware allow the student to resume at the point of exit or does the courseware require the student to start at the beginning of the module?

(8) Providing DLS all the required courseware administrative data to include the system requirements.

(9) Testing courseware on the ALMS Content Validation Server (CVS). The CVS is available for developers to test-fix-test their courseware prior to publication on the ALMS production server.

b. DLS is responsible for the following:

(1) Hosting courseware.

(2) Resolving enterprise system and Digital Training Facility hardware and software problems within DLS control.

(3) Forwarding courseware issues received from ATHD or via telephone calls to the proponent for resolution.

(4) Granting permissions for training developers to test courseware on the Content Validation Server.

(5) Granting permissions for CoMs to access the ALMS.

(6) Loading courseware on the ALMS production server.

(7) Sending out Courseware Playability Test Reports to the developers/proponents for courseware that was tested.

4. ALMS

4.1 Loading.

Once courseware has passed the playability testing by DLS, it will be loaded on the ALMS. Courseware will be tested for environmental issues when on the ALMS by DLS. During testing on the ALMS, if any errors occur, a Help Desk Ticket will be opened through DLS Help Desk with the information regarding the problem for further evaluation (by either DLS and/or the developer/proponent). Once all issues have been corrected, the courseware will be removed from the CVS, and placed under the Course Manager's control to input the administrative data and display in the ALMS. The final results of the playability tests will be recorded in the Courseware Database for historical data. **Note that additional troubleshooting may be required as a result of ALMS changes and system backups that occur throughout the courseware testing cycle.**

4.2 The Course Manager.

The key individual in this process is the Course Manager (CoM). The CoM is responsible to ensure that the information required for administering training is entered into the ALMS and that it accurately reflects the intent of the Proponent. It is critical that all CoM's attend the ALMS Course Manager training. The three-day training covers the procedures and data required to be successful. See Appendix 3, System User Roles, for a complete listing of ALMS roles.

Appendix 1, Validation of Courseware Form

Courseware Title:				
Course Manager(s)				
Name	Organization/Company	Date of Training	Email Address	Phone Number
Help Desk Agent(s)				
Name	Organization/Company	Date of Training	Email Address	Phone Number
This course has been validated and is ready for loading onto the Army Learning Management System.				
Date	Signature	Title & Position	Organization	

Appendix 2, Courseware Playability Test Report
Product Manager, Distributed Learning System (PM, DLS)

DATE:
COURSEWARE MOS/TITLE:
COURSEWARE DATE/ VERSION:
COURSEWARE FUNDING YEAR:
TEST ITERATION:
DELIVERY METHOD:
PART I – SCORM (ATSC Only)
COURSEWARE TESTER:
SCORM VERSION:
ADL TEST SUITE VERSION:
VERIFICATION METHOD:
FINDINGS:
CONTENT PACKAGE (ATSC Only)
RESOURCE VALIDATION:
Number of files (Continuous Testing Only):
Courseware Package:
Manifest File Validation:
Package (Disk) File Validation:

Appendix 3, Courseware Troubleshooting, Failures, and Rejections

Troubleshooting

If there are problems importing courseware either into the CVS or the ALMS, the courseware will be tested for SCORM using the ADL Conformance Test Suite. If courseware passes all the SCORM Tests but is unable to be imported onto the CVS or ALMS, an Army Training Help Desk ticket will be opened and the problem will be investigated. If it is determined there is a problem with the courseware, it will be returned to the developer/proponent. If the problem is determined to be within the ALMS, the problem will be corrected and the courseware then be loaded. SCORM tools can be downloaded from <http://www.adlnet.gov/downloads/index.cfm>.

Rejections

Below are typical reasons for courseware rejections:

- Courseware not validated by the proponent that it works as intended on the CVS/ALMS
- Courseware not packaged correctly
- Courseware that will not load and found to be a courseware issue
- Courseware Administrative Data
- No system requirements provided
- Courseware is SCORM, but there is no manifest file
- No SCORM log files
- System requirements
- Answer keys for pre- and post-test
- Reference/help and glossary files not embedded within the courseware
- Streaming media not embedded within the courseware
- Audio quality poor or missing
- Graphics not displayed correctly

Failures

The following are some reasons for failures:

- The wrong completion status sent to the ALMS
- Requires a mastery score, but no mastery score is provided
- System hang ups that do not allow course completion
- Course does not navigate properly

Appendix 4, System User Roles

Role		Description
1	Assistant Instructor	An individual, military or civilian, who provides support and assistance to a primary Instructor when they are preparing for or presenting material to a Learner.
2	Class Manager	This is the individual responsible for managing the conduct of an iteration of a course. The Class Manager's responsibilities include, but are not limited to, such activities as establishing/verifying daily (lesson level) scheduling, authenticating Learners, ensuring resources are available when needed, and ensuring Learners are where they are scheduled to be.
3	Classroom Manager	This individual is responsible for ensuring that an assigned classroom/lab/training area at a resident education or training site is ready with the required training products for the presentation of specified lessons.
4	Course Manager (MACOM)	This is the individual at MACOM level who is responsible for implementation of training through validation of appropriate resources (Instructors, facilities ammunition, equipment) to train the Army. This individual verifies MOS/AOC training strategy and all variable course data from resource document submissions (ITP, CAD, POI) for each course and identifies and coordinates with DA DCSOPS and DA DCSPER on constraints to training that may become potential training stoppers. This individual represents assigned TRADOC schools at the annual Structure and Manning Decision Review (SMDR) at DA DCSPER to ensure appropriate assignments of training requirements and resources with the POM
5	Course Manager (Proponent)	This is the individual assigned by the course proponent to set up courses on the ALMS and to ensure the efficient presentation of the assigned course over time. A Course Manager for a specific course ensures it is current, establishes class start and end dates, submits CAD and POI, ensures iterations are presented as designed and scheduled (start and end dates), assists Class Managers as needed, acquires resources required to present the course, identifies course problems and implements viable implementation solutions
6	Digital Training Facility Manager	This is the individual responsible for ensuring the distance learning facility is available for Learner use and that the facility provides the required capabilities. Responsibilities include such items as ensuring installed education/training equipment, software, and networks operate as required; a learning station with appropriate courseware is available for scheduled learner(s), and equipment/software upgrades are installed.
7	Facilitator	This is an individual who serves to make it easier for a group of Learners to reach a predefined learning objective. The facilitator serves to keep the groups' actions/discussions focused on the task at hand.

8	Instructor	Any individual, military or civilian, who conducts instruction. This instruction may be on-site in the actual presence of Learners, via electronic means such as Video Tele-training (VTT) or web-based education/training, or providing assistance to a Learner engaged in a self-paced education/training program.
9	Learner	This is an individual engaged in acquiring knowledge and skill by actively participating in a directed or self-motivated education/training course/courseware.
10	Learner Approver	This individual is a chain-of-command supervisor who is overall responsible for the welfare, morale, training, education and discipline of those under their command/direction.
11	Product Distributor	The Product Distributor will be the individual responsible for shipping paper-based, CD-ROM based and other hard copy products to recipients in response to requests for these products. The request can be triggered by the registration of a learner in a course or by a request for a product in the product catalog. The PD will also be responsible for ensuring that there are always sufficient quantities of these products in stock to meet user requests.
12	Scheduler	An individual responsible for scheduling classroom facilities for each type of class. The Scheduler will, for example, identify the course, class, classroom, and activity, start and end time.
13	Training Facility Manager	This individual is responsible for the operation and maintenance of Army education/training facilities. These are the facilities that provide special capabilities required to conduct education/training activities. These facilities include, but are not limited to, such items as ranges, training areas, simulation buildings, and training laboratories/workshops. This manager is responsible for ensuring the facility is available for Learner use when scheduled and that the facility provides the required capabilities.
14	Unit Training Managers	This individual is responsible for implementing training in an Army unit. It includes such management activities as: planning, budgeting, organizing, acquiring training products, scheduling, and providing evaluation feedback to the training/task proponent concerning the quality and usability of the provided training materials.